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Title of the lecture:
Practical realization of a 3D-printed Atomic Force Microscope

Format:
TBA

Contents:

The Atomic Force Microscopy is a very-high-resolution type of surface imaging that uses all the ingredients of optomechanics and nanomechanics: micro-mechanical resonator, laser light, high-sensitivity optical detection, micro actuator, feedback control... In this practical workshop you will fabricate your own toy model of AFM with open source software, open hardware material and 3D printed parts. You will design and print some of the parts, realize the electronics, build, adjust and optimize the device. Your challenge being to obtain the best resolution!

More than a simple toy, this model AFM shows how, with Do It Yourself technologies and a limited budget, it is now possible to realize high quality pedagogical material for a broad audience, from general public to university students.

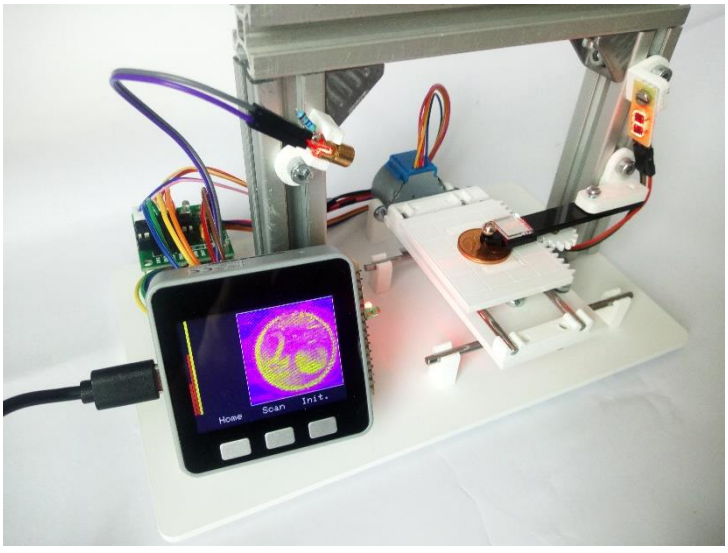

Figure 1 Photograph showing a specimen of the 3D-printed AFM